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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,718	03/01/2002	Kishan Khemani	16096.6	7476

22913 7590 05/02/2006

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EXAMINER

WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

*Supplemental*  
**Office Action Summary**

Application No.

10/087,718

Applicant(s)

KHEMANI ET AL.

Examiner

Ana L. Woodward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/9/2006
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 39-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Supplemental Office Action***

1. This Office Action supersedes the office action mailed April 25, 2006. The indicated allowability of claims 39-41 is withdrawn in view of further reconsideration of the reference to U.S. 6,231,970 (Andersen et al). A rejection of claims 39-41 based on said reference follows.

***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 6-12, 16-20, 24, 25, 27, 28 and 31-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 5,374,259 (Takahashi et al).

Takahashi et al disclose a biodegradable disposable diaper comprising a combination of a liquid absorbing material, a liquid permeable surface material and a leak-proof backing material,

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said liquid permeable material being formed of a biodegradable aliphatic polyester resin. The leak-proof backing material may be a film made from the same biodegradable polyester (column 7, lines 65-66). When the biodegradable polyester is used in the form of a film, the film may be formed by mixing a filler, such as calcium carbonate, extruding the film material into a film, stretching the film and effecting a staining emboss work, thereby obtaining a leak-proof material having high air permeability (column 8, lines 2-12 and column 12, lines 16-27). The film has a thickness ranging from 20 to 50 micrometers and micro-pores formed by the stretching of the filler-containing material (column 8, lines 13-14).

It is reasonably believed that the particle filled-biodegradable films of Takahashi et al would necessarily possess all the characteristics governing the presently claimed single film layer, e.g., cavitations, dead-fold properties, etc., due to the presence of the particulate fillers and the processing techniques used to manufacture them. As to claims 31-33, it is reasonably believed that at least some of the filler particles would protrude from the surface of the sheet due to the orientation process, which causes cavitation and localized separation between the polymer matrix and individual filler particles. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from those set forth by Takahashi et al.

5. Claims 1-12, 15, 18-25, 27, 28 and 30-35 are rejected under 35 U.S.C. 102 (a) and/or 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 6,231,970 (Andersen et al).

Andersen et al disclose thermoplastic starch compositions and films therefrom comprising a thermoplastic starch, inorganic filler and one or more additional thermoplastic

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polymers (abstract, examples, etc). Films or sheets formed from the compositions can be stretched after initial formation, in one or both directions (column 47, line 20, claim 86).

It is reasonably believed that the particle filled-biodegradable films of Andersen et al would necessarily possess all the characteristics governing the presently claimed single film layer, e.g., cavitations, dead-fold properties, etc., due to the presence of the particulate fillers and the processing techniques used to manufacture them. As to claims 31-33, it is reasonably believed that at least some of the filler particles would protrude from the surface of the sheet due to the orientation process, which causes cavitations and localized separation between the polymer matrix and individual filler particles. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from those set forth by Andersen et al.

***Claim Rejections - 35 USC § 103***

6. Claims 3-5, 15 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,374,259 (Takahashi et al), described hereinabove, in view of US 5,817,721 (Warzelhan et al).

Takahashi et al differ, in essence, from the above-rejected claims in not expressly exemplifying the content of filler used and in not expressly disclosing the use of the composition in the production of film wraps. In both regards, attention is directed to Warzelhan et al who teach the conventionality of adding up to 80% by weight of fillers, such as calcium carbonate, to analogous biodegradable compositions useful in the production of diapers and packaging sheets (column 10, lines 17-22 and 40-55). Accordingly, both the use of filler amounts of up to 80%

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by weight and the production of packaging sheets would have been obvious to one having ordinary skill in the art.

7. Claims 13, 14, 16, 17, 26, 29 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,231,970 (Andersen et al) described hereinabove.

Regarding the claims requiring the inclusion of both a stiff and a soft thermoplastic biodegradable polymer, attention is directed to examples 27-28 which additionally incorporate a stiff thermoplastic polymer, e.g., polylactic acid, etc., and render obvious said claimed subject matter. As to claims 39-41, it would have been obvious to employ a destructure starch, reading on the presently claimed stiff starch, in a multi-component composition comprising at least one stiff polymer and at least a soft aliphatic-aromatic copolyester with the reasonable expectation of success. In this regard, attention is directed to claim 96 of the reference.

As to claims 16 and 17, the film articles of the Andersen et al reference may be subjected to a plurality of post-formation processes, inclusive of creping, printing, etc. (column 47, lines 13-24), thus rendering obvious said claimed subject matter.

#### ***Response to Arguments***

7. Applicant's arguments filed February 6, 2006 have been fully considered and are persuasive to the extent that the rejections over Schiffer et al and Tsai et al have been withdrawn.

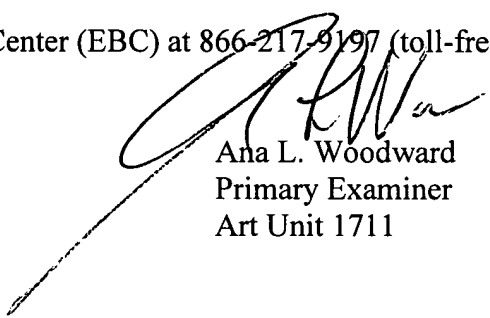
#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ana L. Woodward  
Primary Examiner  
Art Unit 1711

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